WISCONSIN NUTRIENT MANAGEMENT IMPLEMENTATION WORK GROUPS

DNR Update

Andrew Craig
Statewide Nonpoint Source Planning Coordinator
NM plan Specialist
August 22-29
Eau Claire, Jefferson, Richland Center, Wausau, Oshkosh

DNR TOPICS

- Joe Baeten - DNR's new CAFO NM Plan specialist
- Andrew's new DNR position
- P Trade Report
- EVAAL tool

Joe Baeten

- Started July 2014 – new DNR NM Plan specialist
- DNR Waste and Materials Management Specialist
- LTE @ DNR NE region office
  - CAFO NMP reviews
  - Spatial GIS mapping
- UW Green Bay – Masters Degree –Hydrogeology
- Dairy Farm Background

Andrew's new position at DNR

- Statewide Nonpoint Source Planning Coordinator
- '9 Key Element' Watershed Plans – EPA
- Help revise LWRM plans or develop new plans that meet the 9 Key Elements
- TMDL Implementation plan
  - St. Croix, Rock River, Lower Fox
- WQ Trading & Adaptive Management - Runoff Management Liaison

P Trade Report

- Report created for use with P trade or Adaptive Management compliance strategy for point source discharge permits
- Complete a Before / After analysis on fields
- Show P reductions after practices are implemented

P Trade Report

- Step 1 – Using SNAP+ database, run P trade report to show current P management practices over crop rotation (2012-16)
  - Report gives lbs/P/year lost from each field or over entire farm
  - Provides a baseline for comparison
- Step 2 – Make copy of SNAP+ database and select practices to reduce P losses in future years of same crop rotation (2015-16)
  - Reduce P inputs and/or tillage
  - Plant perennial crops, increase residue, cover crops
  - Buffers, contour farming
- Step 3 – Compare P trade reports to calculate P reductions (using excel or some other tool)
  - The is the BEFORE / AFTER analysis
  - Whole farm or field specific P reductions can be determined

P Trade Report

- Step 4 – Multiply total lbs/P/year reduced by DNR delivery factor (typically 2:1 or 3:1) to determine P savings
  - Example: 800 lbs/P/year x 2:1 delivery factor = 400 lbs P/year savings
  - This is the amount of P prevented from reaching the receiving water.
- Step 5 – Include P Trade reports and P savings calculations within the Point Source's compliance plan
  - WQ Trading
  - Adaptive Management
- Step 6 – Point Source submits plan to DNR for review and approval. If approved, plan is incorporated into Point Source permit conditions. EPA review of permit also required.

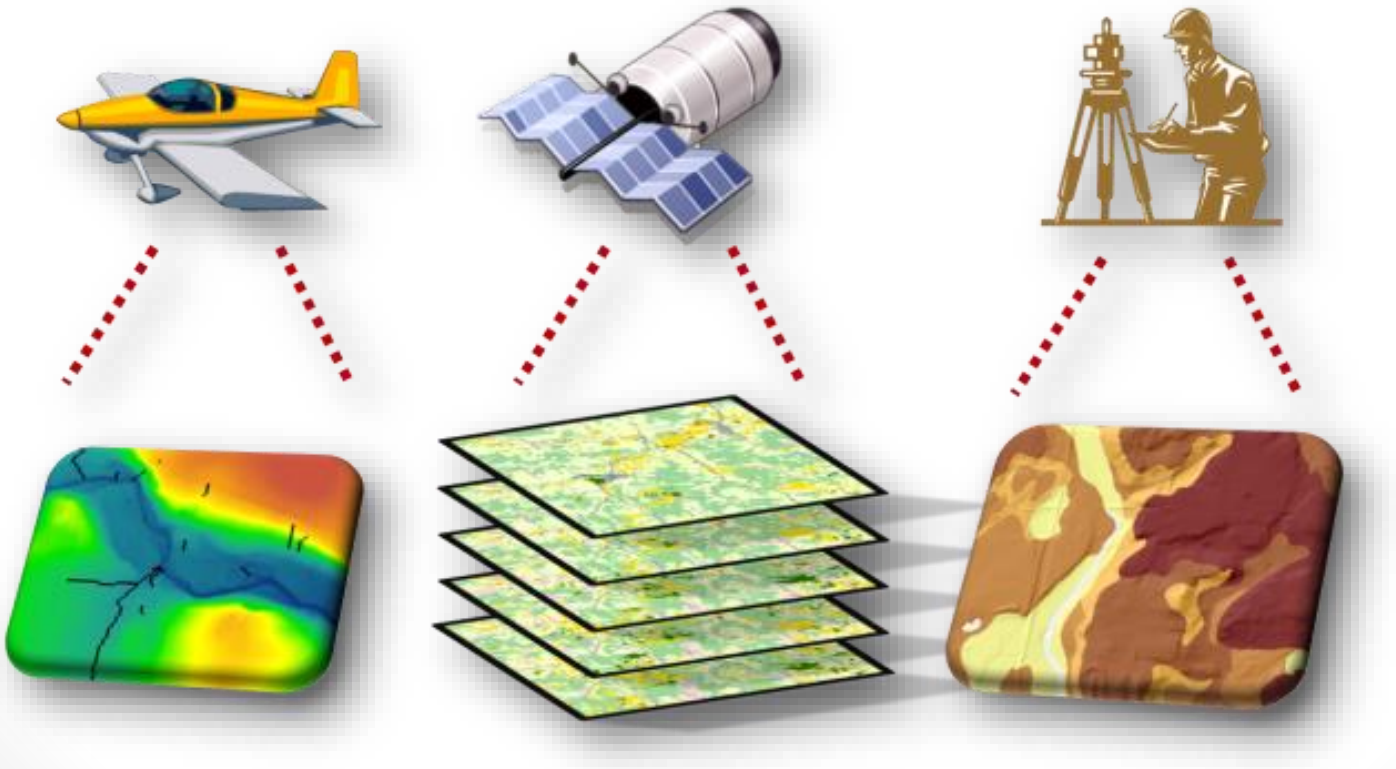
P Trade Report

- The 6 steps shown are only a summary
- DNR guidance (under development) will provide more details and examples for using SNAP+ P Trade reports and calculating P savings using DNR trade ratios

Erosion Vulnerability Assessment for Agricultural Lands

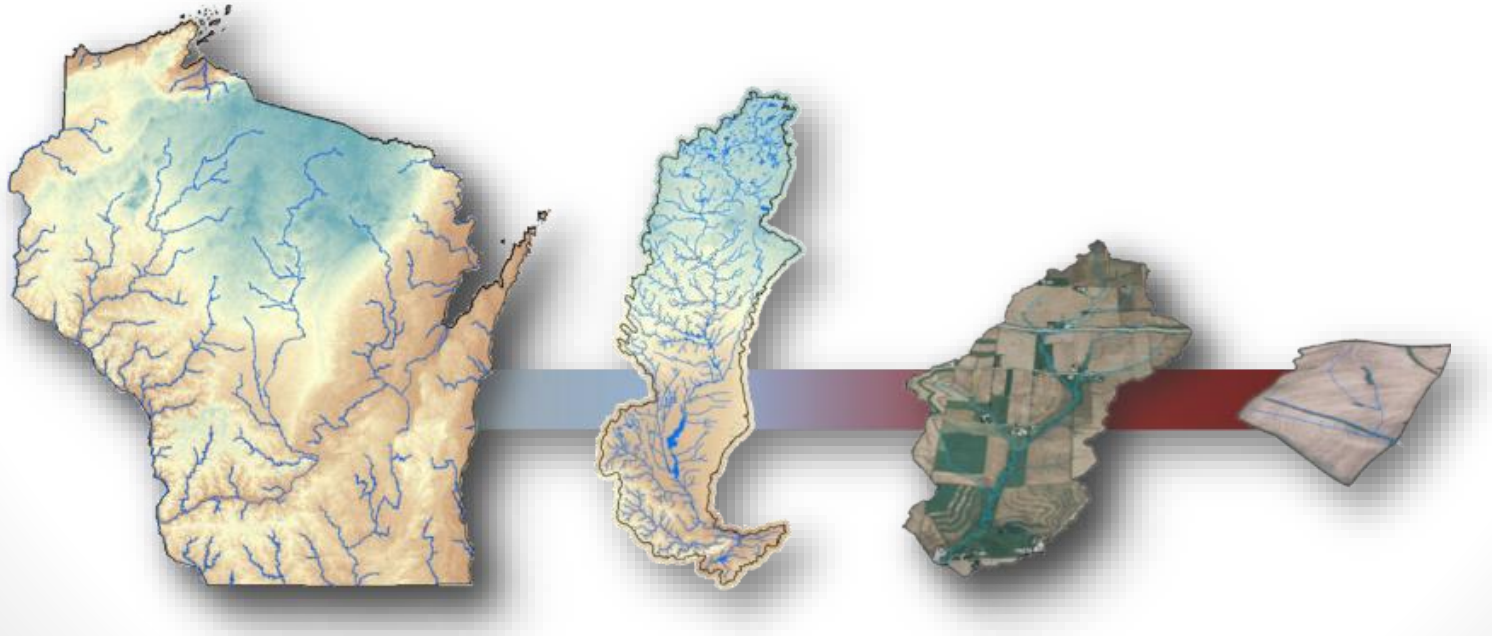
WHAT:

- GIS-based tool that calculates erosion vulnerability using readily available datasets



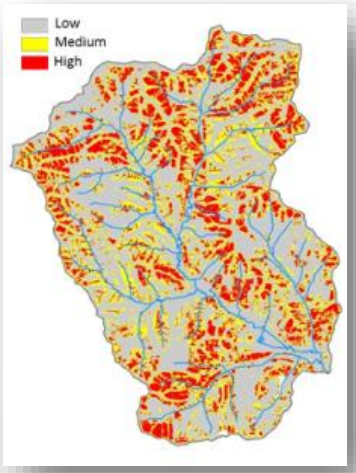
WHAT:

- To go from TMDL development to implementation; this analysis helps direct watershed managers to most vulnerable areas within high-loading watersheds



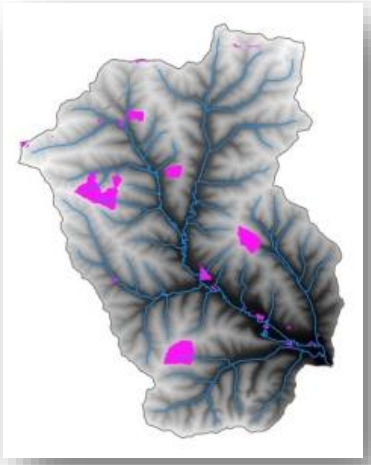
HOW:

- combines USLE, Stream Power Index, and non-contributing areas

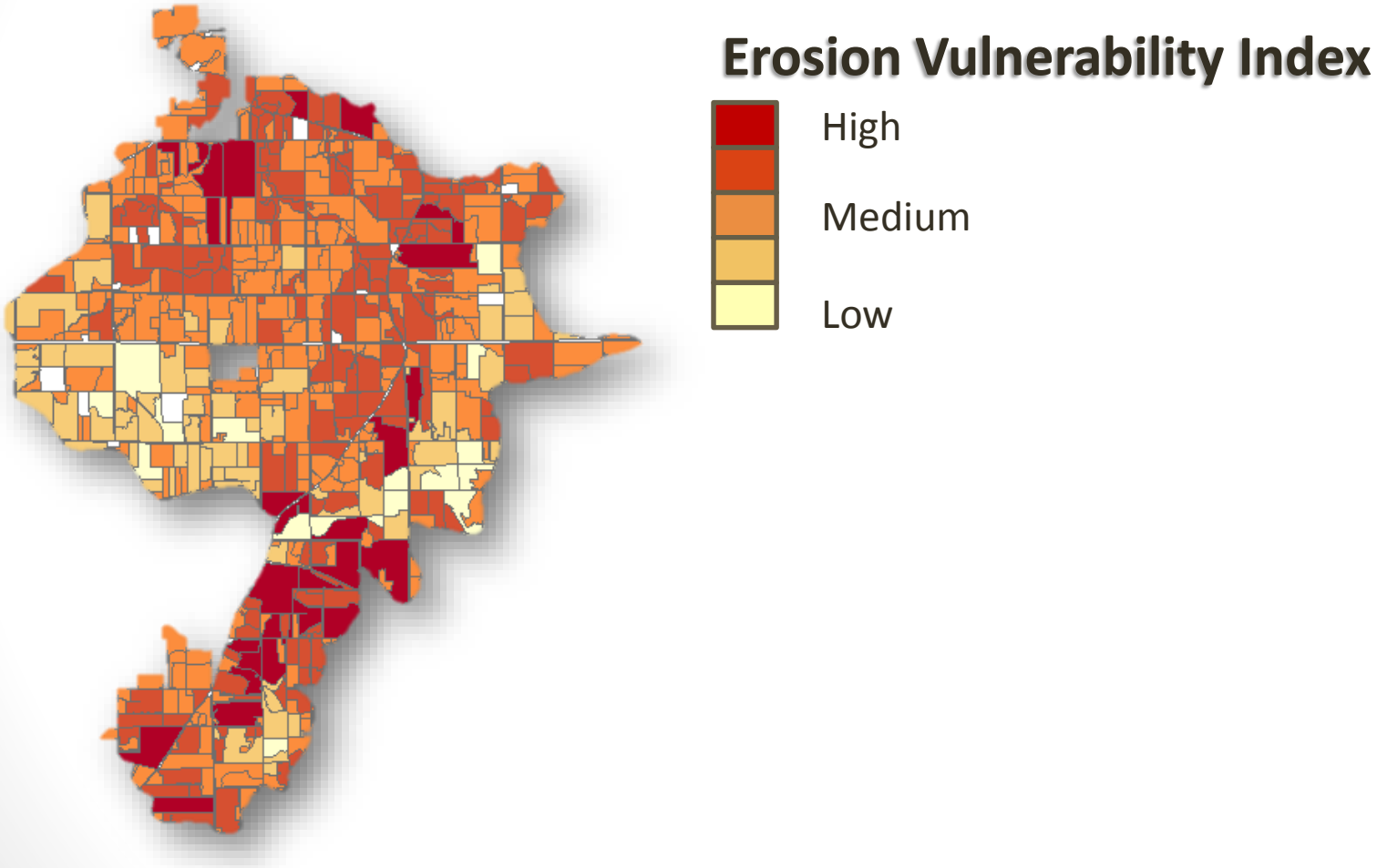


+

+



RESULTS:



DECISION SUPPORT:

LEGEND

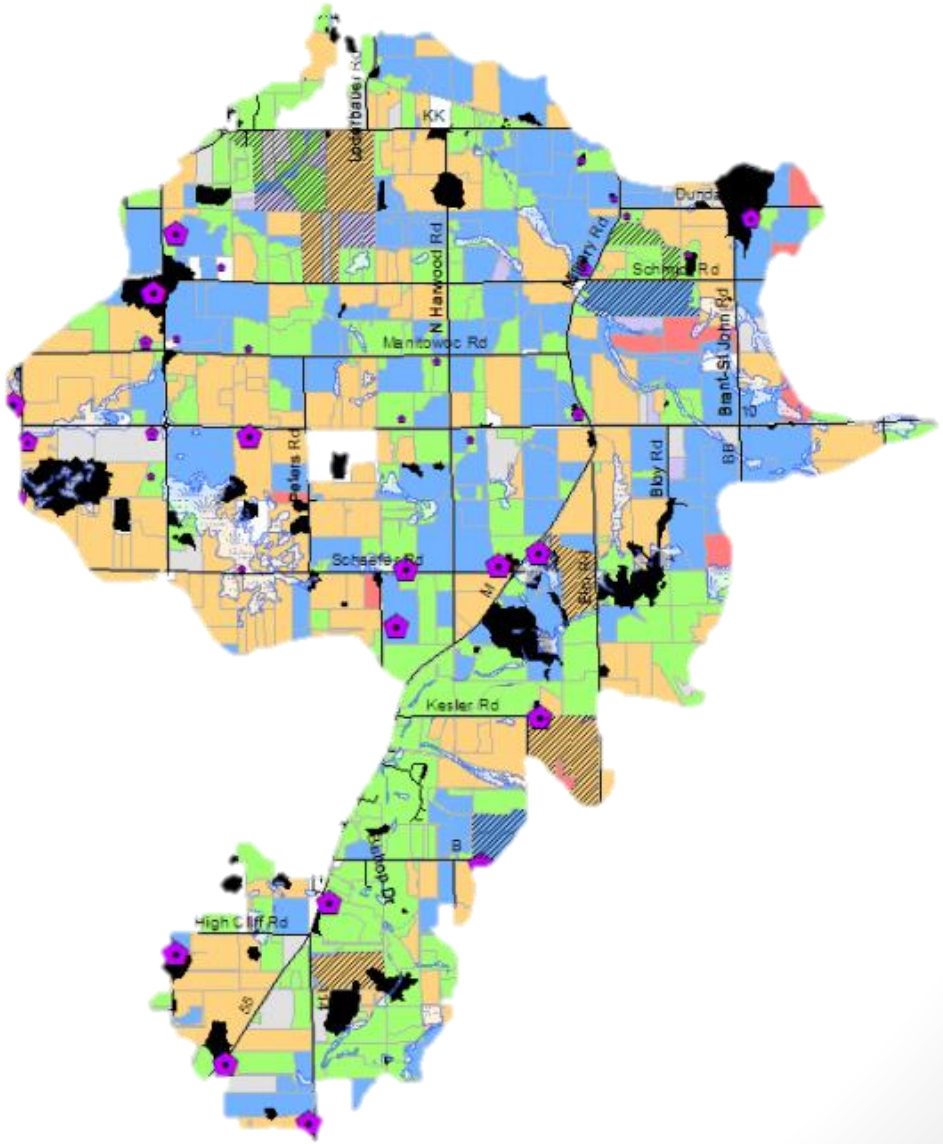
- High Erosion Score
- Non-contributing areas
- Pot. Restorable Wetlands

Distance from animal lot to stream

- 0 – 100 ft.
- 100 - 200
- 200 - 300
- > 300

Crop Rotation

- Continuous Corn
- Cash Grain
- Dairy
- Pasture/Hay/Grassland
- Not enough data



DNR CONTACTS:

- Theresa Nelson 608-266-7037
- Aaron Ruesch 608-266-0152

- dnrwaterqualitymodeling@wisconsin.gov